

CLAIMS

1. A method for enabling a demodulator (40) in a receiver to efficiently lock onto a desired one of a plurality of channels over which a received signal may be transmitted, comprising the steps of:

5 determining the respective carrier tracking loop frequency offset corresponding to each channel in the receiver;

storing each of said carrier tracking loop frequency offsets as first offsets;

10 determining the respective symbol timing recovery frequency offset corresponding to each channel in the receiver;

storing each of said symbol timing recovery frequency offsets as second offsets; and

15 retrieving said first and second offsets corresponding to the desired channel, said demodulator (40) thereby using said recalled offsets for starting acquisition of said desired channel.

2. A method as claimed in claim 1 wherein each respective carrier tracking loop frequency offset is determined by locking the receiver to each respective transmitted channel and noting the carrier loop offset for said locked channel.

20 3. A method as claimed in claim 2 wherein each symbol timing recovery frequency offset is determined by locking the receiver to each respective transmitted channel and noting the symbol timing recovery offset for said locked channel.

4. A method as claimed in claim 1 wherein each symbol timing
25 recovery frequency offset is determined by locking the receiver to each

respective transmitted channel and noting the symbol timing recovery offset for said locked channel.

5. A method for enabling a VSB demodulator 40 in a digital television receiver to efficiently start acquisition of a received television signal on a desired one of a plurality of channels over which said television signal may be transmitted, comprising the steps of:

determining the respective carrier tracking loop frequency offset corresponding to each channel of the digital television receiver;

10 storing each of said carrier tracking loop frequency offsets in a plurality of first non-volatile memories (CTL EEPROM), each of said first non-volatile memories (CTL EEPROM) corresponding respectively to a different television channel;

determining the respective symbol timing recovery frequency offset corresponding to each channel of the digital television receiver;

15 storing each of said symbol timing recovery frequency offsets in a plurality of second non-volatile memories (STR EEPROM), each of said second non-volatile memories (STR EEPROM) corresponding respectively to a different television channel; and

20 retrieving said offsets from each of said first (CTL EEPROM) and second (STR EEPROM) non-volatile memory corresponding to the desired channel, said demodulator (40) thereby using said retrieved offsets as a starting point in acquiring said desired channel.

6. A method as claimed in claim 5 wherein said respective pluralities of first (CTL EEPROM) and second (STR EEPROM) non-volatile memories are EEPROMS.

7. A method as claimed in claim 5 wherein each respective carrier tracking loop frequency offset is determined by locking the receiver to each

respective transmitted channel and noting the carrier loop offset for said locked channel.

8. A method as claimed in claim 7 wherein each symbol timing recovery frequency offset is determined by locking the receiver to each
5 respective transmitted channel and noting the symbol timing recovery offset for said locked channel.

9. A method as claimed in claim 5 wherein each symbol timing recovery frequency offset is determined by locking the receiver to each
10 respective transmitted channel and noting the symbol timing recovery offset for said locked channel.

10. Apparatus for enabling a VSB demodulator (40) in a television receiver to efficiently lock onto a desired one of a plurality of channels over which a received television signal may be transmitted, comprising:
a demodulator (40) for determining the respective carrier tracking loop
15 frequency offset corresponding to each channel in the television receiver;
first non-volatile memory means (CTL EEPROM) for storing each of said carrier tracking loop frequency offsets as first offsets;
a symbol clock recovery circuit (60) for determining the respective
symbol timing recovery frequency offset corresponding to each channel in the
20 television receiver;
second non-volatile memory means (STR EEPROM) for storing each of said symbol timing recovery frequency offsets as second offsets; and
means for retrieving said first and second offsets corresponding to the desired channel from said first (CTL EEPROM) and second (STR EEPROM)
25 non-volatile memory means, said demodulator (40) thereby using said retrieved offsets for starting acquisition of said desired channel.

11. Apparatus as claimed in claim 10 wherein said first non-volatile memory means (CTL EEPROM) is a first plurality of EEPROMS and said second non-volatile memory means (STR EEPROM) is a second plurality of EEPROMS.

5 12. Apparatus as claimed in claim 11 wherein said demodulator (40) includes means for locking the clock in the receiver to the carrier for the respective transmitted channel and indicating the carrier loop offset for said locked channel.

10 13. Apparatus as claimed in claim 11 wherein said symbol clock recovery circuit (60) includes means for locking the clock in the receiver to the symbol timing for the respective transmitted channel and indicating the symbol timing recovery offset for said locked channel.

15 14. Apparatus as claimed in claim 13 wherein said demodulator (40) includes means for locking the clock in the receiver to the carrier for the respective transmitted channel and indicating the carrier loop offset for said locked channel.

20 15. Apparatus as claimed in claim 10 wherein said demodulator (40) includes means for locking the clock in the receiver to the carrier for the respective transmitted channel and indicating the carrier loop offset for said locked channel.

 16. Apparatus as claimed in claim 10 wherein said symbol clock recovery circuit (60) includes means for locking the clock in the receiver to the symbol timing for the respective transmitted channel and indicating the symbol timing recovery offset for said locked channel.

17. Apparatus as claimed in claim 16 wherein said demodulator (40) includes means for locking the clock in the receiver to the carrier for the respective transmitted channel and indicating the carrier loop offset for said locked channel.